WILDLIFE HARVEST AND POPULATION STATUS REPORT

RING-NECKED PHEASANT - 2006

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2005-06 PHEASANT HUNTING SEASON

In 2005, 11,215 pheasant hunters killed 31,204 pheasants statewide; a 5.5% decrease in hunters and a 21.6% increase in harvest from 2004 (Figure 1). The estimated 2005 pheasant harvest decreased 0.7% from the 5-year average (2000–04; 31,430 average harvest; SD 7,567) and decreased 31.6% from the 10-year average (1995–04; 45,605 average harvest; SD 17,478). In 2005, pheasant hunters averaged 0.56 birds per day and 4.96 days per season compared to 0.60 birds per day and 3.92 days per season in 2004. Average season bag for 2005 was 2.78 birds which was a 28.7% increase compared to 2004. Regional harvest data for 2005 showed Northwestern Prairie had the highest estimated harvest (14,668 birds) and Mississippi Lowlands the lowest (0 birds; Figure 2). During 2005, Northwestern Prairie had the greatest number of hunters (4,705) with Mississippi Lowlands the lowest (42); hunters in the Northwestern Prairie spent 5.76 days pheasant hunting compared to 3.64 days in the Mississippi Lowlands.

2006 POPULATION SURVEYS

The Department annually cooperates with more than 450 rural mail carriers in mid-April to monitor the relative distribution of spring pheasant populations in northern and southeastern Missouri; these data also provide a relative with-in year distribution range map. The 2006 Rural Mail Carrier Survey (RMCS) reported 259 pheasants with an index of 0.64 birds per 100 miles (Figure 3).

The August Roadside Survey (ARS) monitors the number of pheasants and pheasant broods observed along standardized 30-mile routes, and has provided a fairly reliable predictor of fall pheasant harvests in previous years. The 2006 statewide results for the number of pheasants observed showed a 65.0% increase compared to 2005, a 149.5% increase compared to the 5-year average (2001-05), and a 102.7% increase from the 10-year average (1996-05; Table 1; Figure 4). Pheasant production in 2006, as determined by the number of broods observed, increased 90.0% compared to 2005, increased 291.8% compared to the 5-year average (2001-05), and increased 154.2% from the 10-year average (1996-05; Table 1). Regionally, Northwestern Prairie had the highest index of pheasants observed (7.00 birds/30 miles) and Mississippi Lowlands the lowest (0.00 birds/30 miles).

During 1988-06, there was a strong relationship (r=0.83) between ARS and fall pheasant harvest indicating that ARS may often provide a relatively good predictor of harvest for the upcoming fall season (Figure 3). With this in mind, statewide 2006 pheasant hunting opportunities are expected to be noticeably improved compared to the 2005 season, and better than the previous 5- and 10-year averages. Expect hunting opportunities to be best in the Northwestern Prairie, above average in the Northern

Riverbreaks and the Northeastern Riverbreaks, and poor in the Mississippi Lowlands. Although increases in the number of pheasants and pheasant broods observed in some areas around the state were recorded this year (Table 1), these relative trend values are still noticeably below trend values observed in other Midwestern states that comprise the primary pheasant range. For example, comparable data from Iowa's August Roadside Survey for 2006 showed 27.9 birds/30 mile route, so caution should be exercised when interpreting the increases in Missouri from this year (4.72 birds/30 mile route). Hunting opportunities will vary depending upon severe localized weather events during the nesting and brood-rearing season, and the resulting effects of those weather conditions on habitat.

PHEASANT RANGE EXPANSION PROGRAM

The Department attempted to expand the pheasant range in 14 northern Missouri counties by relocating wild trapped birds during 1987-00; all 23 targeted sites have been completed (Table 2). Evaluation data indicates mixed results. Some release sites showed relatively high numbers of crowing males along survey routes adjacent to the release sites, and showed some birds expanding into surrounding areas. Some releases showed relatively show relatively good numbers of birds around the release site, but the birds did not become numerous enough to be observed by rural mail carriers. Other release sites showed perpetually low numbers of birds that never disappeared, but never established thriving wild populations. Some releases were classified as failures for various reasons.

Table 1. The number of pheasants and broods observed along 30-mile routes in August by zoogeographic region, and relative change through time.

| Zoogeographic Region | 2006 | % Change From 2005 | % Change From 5- Year Mean (2001-05) | % Change From 10- Year Mean (1996-05) |
|---|-------------------------|--------------------------|--|---|
| Northwestern Prairie Total Pheasants Production Index | 7.00 1.18 | 8.7 25.5 | 73.1 118.5 | 64.3 104.20 |
| Northern Riverbreaks Total Pheasants Production Index | 2.17 0.17 | 68.2 21.4 | -2.3 -43.3 | -21.9 -52.5 |
| Northeastern Riverbreaks Total Pheasants Production Index | 4.20 0.60 | 49.7 62.2 | 127.5 240.9 | 143.2 195.6 |
| Mississippi Lowlands Total Pheasants Production Index | n/a ¹ n/a | n/a n/a | n/a n/a | n/a n/a |
| STATEWIDE Total Pheasants Production Index | 4.72 0.76 | 65.0 90.0 | 149.5 291.8 | 102.7 154.2 |

¹Data from the southeastern Mississippi Lowlands region continue to be recorded as zero (0) number of pheasants per 30-mile survey routes; relative changes from year-to-year would be meaningless.

Table 2. Release sites and numbers of wild-trapped pheasants per release, 1987-00.

| RELEASE AREA | COUNTY | COMPLETED | NO. BIRDS (M:F) | SOURCE OF BIRDS |
|------------------|--------------------|-----------|-------------------------------|---|
| Novelty | Knox | 1989 | 226 (66:145) (15 unk. sex) | Squaw Creek NWR Nebraska |
| *Franklin Island | Howard | 1989 | 178 (58:120) | Squaw Creek NWR Mar. Tem. Clair CA |
| New Cambria | Macon | 1990 | 100 (30:70) | Kansas |
| *Ardmore | Macon | 1990 | 138 (53:85) | Squaw Creek NWR Kansas |
| Hannibal | Marion | 1990 | 123 (22:101) | Squaw Creek NWR Bilby Ranch CA |
| Smileyville | Marion | 1990 | 97 (21:76) | Bob Brown CA Kansas |
| Sillieyville | | 1990 | 97 (21:70) | Kansas |
| Kaseyville | Randolph Macon | 1991 | 143 (34:109) | Nebraska |
| Clifton Hill | Randolph | 1991 | 144 (34:110) | Nebraska |
| Bethel | Shelby | 1991 | 143 (33:110) | Bilby Ranch CA Grand Pass CA Bob Brown CA |
| Glasgow | Howard Chariton | 1991 | 141 (27:114) | Kansas |
| Salisbury | Chariton | 1991 | 135 (25:110) | Kansas |
| Rothville | Chariton | 1993 | 112 (19:93) | Bob Brown CA South Dakota |
| Mendon | Chariton | 1993 | 135 (38:97) | South Dakota Mo. Private Land |
| Bogard | Carroll | 1993 | 123 (33:90) | South Dakota |
| Roads | Carroll | 1993 | 121 (23:98) | South Dakota Mo. Private Land |
| Plymouth | Carroll | 1994 | 176 (23:153) | South Dakota Mo. Private Land |
| Regal | Ray | 1994 | 219 (39:180) | South Dakota |
| Stet | Ray | 1994 | 179 (54:125) | South Dakota |
| Braley | Clinton | 1996 | 141 (28:113) | South Dakota |
| West Keystone | Clinton | 1996 | 165 (27:138) | South Dakota |
| Starfield | Clinton | 1996 | 173 (40:133) | South Dakota |
| Plattsburg | Clinton | 1996 | 156 (19:137) | South Dakota |
| Wexford | Clinton | 2000 | 116 (32:84) | South Dakota |

^{*}Release sites classified as failures.

Missouri Pheasant Hunters and Harvest

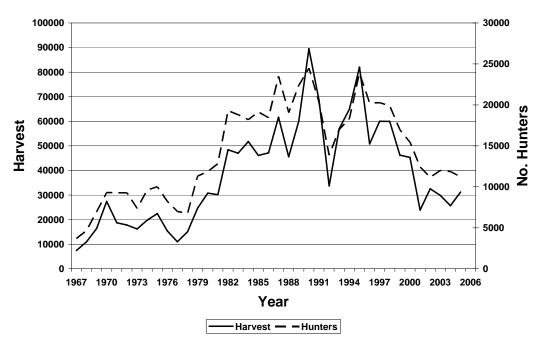


Figure 1. Number of ring-necked pheasant hunters and harvest estimated by the small-game post-season harvest mail survey (1967–05).



Figure 2. Zoogeographic Regions of Missouri.

2006 MISSOURI SPRING PHEASANT DENSITIES

FROM RURAL MAIL CARRIER SURVEYS

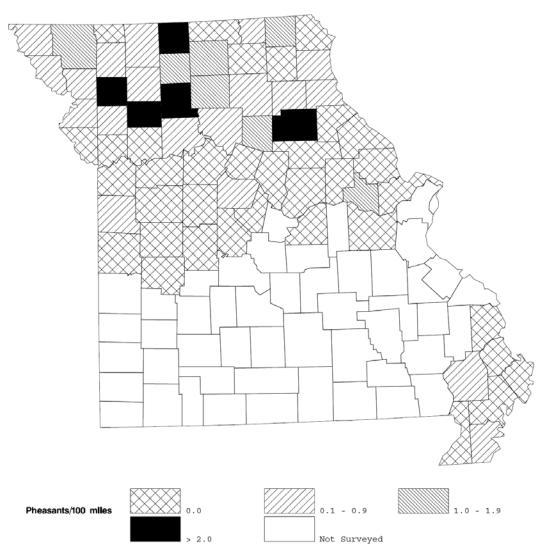


Figure 3. Relative distribution of Missouri spring pheasant populations derived from 487 completed rural mail carrier surveys, during April 2006.

Missouri Pheasant Trends

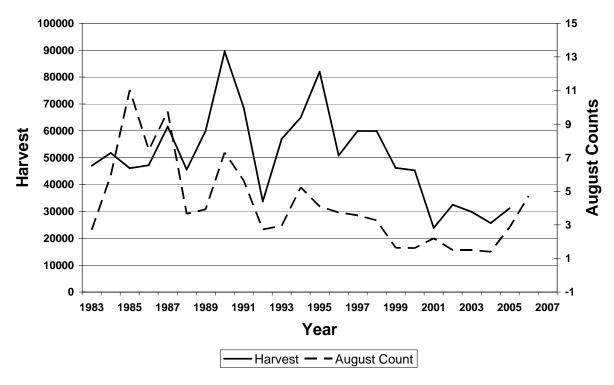


Figure 4. Estimated ring-necked pheasant harvest from the small-game post-season harvest mail survey (1983–05) and relative population trends from the August Roadside Survey (1983–06).